What Is Claimed Is:

1. A storage control apparatus for accessing data of a logical unit, which is comprised of a single or a plurality of physical units, by a request from a host, comprising:

a channel adapter for interfacing with said host; and

a plurality of controllers which charge each one of the plurality of logical units,

wherein when said host sends an I/O request to concatenation logical unit concatenating said plurality of logical units, said channel adapter sends an I/O request to one controller which charges one logical unit constituting said concatenation logical unit, out of said plurality of controllers to execute the I/O processing in said one controller, then sends the I/O request to another controller which charges another logical unit constituting said concatenation logical unit to execute the I/O processing in said other controller.

2. The storage control apparatus according to Claim 1, wherein said one controller judges whether said I/O request is an I/O request extending over to another controller which charges another logical unit constituting said concatenation logical unit after said I/O processing, and responds the judgment result to said channel adapter.

3. The storage control apparatus according to Claim 2, wherein said each controller has a table for storing the LBA range of each logical unit, and

said controller refers to said table in the LBA range

5 requested by said I/O request, and judges whether said I/O request is an I/O request extending over to another controller, which charges another logical unit constituting said concatenation logical unit.

10 4. The storage control apparatus according to Claim 2, wherein said channel adapter sends said I/O request to said another controller according to the response from said one controller that the I/O request extends to said another controller.

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5. The storage control apparatus according to Claim 1, wherein said channel adapter has a table for storing said controllers corresponding to each logical unit, the LBA range of each logical unit, and the logical units

20 constituting said concatenation logical unit, and

said channel adapter selects a controller of said corresponding logical unit when an I/O request is received from said host.

25 6. The storage control apparatus according to Claim 5, wherein said each controller has a table for storing the LBA range of each logical unit, and

said controller refers to said table in the LBA range requested by said I/O request, and judges whether said I/O request is an I/O request extending over to another controller, which charges another logical unit constituting

5   said concatenation logical unit.

7.   The storage control apparatus according to Claim 1, wherein said each controller comprises:

a cache memory for storing a part of the data of said

10   logical unit which the controller charges; and

a processing unit for executing I/O processing using said cache memory according to said I/O request.

8.   The storage control apparatus according to Claim 1,

15   wherein said channel adapter is constituted by a plurality of channel adapters for connecting said plurality of controllers.

9.   A storage control method for accessing data of a

20   logical unit, which is comprised of a single or a plurality of physical units, by a request from a host, comprising steps of:

receiving an I/O request from said host to a concatenation logical unit concatenating a plurality of

25   logical units by a channel adapter;

sending the I/O request from said channel adapter to one controller which charges one logical unit

constituting said concatenation logical unit out of a
plurality of controllers which charge said plurality of
logical units;

executing I/O processing in said one controller;

5   sending the I/O request from said channel adapter
to another controller which charges another logical unit
constituting said concatenation logical unit; and

executing the I/O processing in said other
controller.

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10. The storage control method according to Claim 9,
further comprising:

a step of judging whether said I/O request is an I/O
request extending over to another controller which charges
15 another logical unit constituting said concatenation logical
unit after said I/O processing by said one controller; and

a step of responding the judgment result to said
channel adapter.

20   11. The storage control method according to Claim 10,
wherein said response step comprises:

a step of referring to a table storing the LBA range of
each logical unit in the LBA range requested by said I/O
request by said one controller; and

25   a step of judging whether said I/O request is an I/O
request extending over to another controller, which charges
another logical unit constituting said concatenation logical

unit.

12. The storage control method according to Claim 10, wherein the step of executing I/O processing in said other controller further comprises a step of sending said I/O request to said other controller according to the response from said one controller that the I/O request extends to said other controller by said channel adapter.

13. The storage control method according to Claim 9, wherein said reception step comprises:

a step of referring to a table for storing said controllers corresponding to each logical unit, LBA range of each logical unit, and logical units constituting said concatenation logical unit by said channel adapter: and

a step of selecting a controller of said corresponding logical unit when an I/O request is received from said host.

14. The storage control method according to Claim 13, wherein said response step comprises:

a step of referring to a table storing the LBA range of each logical unit in the LBA range requested by said I/O request by said one controller; and

a step of judging whether said I/O request is an I/O request extending over to another controller, which charges another logical unit constituting said concatenation logical unit.

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15.   The storage control method according to Claim 9, wherein the I/O processing step for said I/O request further comprises a step of executing I/O processing using a cache

5   memory for storing a part of the data of said logical unit which each controller charge according to said I/O request.

16.   The storage control method according to Claim 9, wherein said reception step further comprises a step of

10   which one of the plurality of channel adapters for connecting said plurality of controllers receives the I/O request from said host.